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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,771	08/19/2003	James R. Kvitrud	58449US002	4116
<div>7590 07/08/2008</div> <div>Eloise J Maki Esq 3M Innovative Properties Company Office of Intellectual Property Counsel P O Box 33427 St Paul, MN 55133-3427</div>				
EXAMINER				
BUMGARNER, MELBA N				
ART UNIT		PAPER NUMBER		
4138				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/643,771

Applicant(s)

KVITRUD ET AL.

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 68-73 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 and 68-73 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date 3/27/08
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kahn (3,949,476). Kahn discloses a dental crown form comprising a body defining an anatomically tooth-shaped volume, the body comprising a base and an incisal/occlusal region distal from the base, hardenable dental material for forming dental crown located within the volume, and a handle attached to the body at a location removed from the base and closer to the incisal/occlusal region than the base (figure 1b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, 9, 10, 13, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn in view of Bergstrom et al. (6,283,755). Kahn discloses a dental form that shows the limitations as described above; however, Kahn does not show the dental form having a hollow handle. Bergstrom et al. teach a dental form comprising a hollow tubular handle 5', the hollow handle defines a handle volume 14 that is in fluid communication with the volume

of the body through an opening in the body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the dental form of Kahn to have the handle of Bergstrom et al. for relieving hydrostatic pressure in view of Bergstrom et al. It would have been obvious matter of choice to one of ordinary skill in the art as to the handle having a scaled tip. The handle volume is more than 5% of the body volume.

5. Claims 7, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn in view of Bergstrom et al. and further in view of Willison et al. (2004/0005277). The modified dental form of Kahn and Bergstrom et al. shows the limitations as described above; however, they do not show the dental form located within a hermetically sealed package. Willison et al. teach a dental form (device) placed in a hermetically sealed package [0155]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the dental form to be packaged as in Willison et al. in order to contain and transport the device to the user in view of Willison et al.
6. Claims 8, 12, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn in view of Bergstrom et al. and further in view of Subelka et al. (6,696,507). The modified dental form of Kahn and Bergstrom et al. shows the limitations as described above; however, they do not show the dental form located within an actinic light barrier package. Subelka et al. teach dental material placed in an actinic light barrier package 10 (column 5 line 23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the dental form to be packaged as in Subelka et al. in order to protect the contents from premature exposure to light in view of Subelka et al.

7. Claims 68-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn in view of Oxman et al. (6,187,836). Kahn discloses a dental form that shows the limitations as described above and hardenable dental material such as dipolymer and acrylic resin; however, Kahn does not explicitly show the hardenable dental material being photopolymerizable or chemically polymerizable. Oxman et al. teach hardenable dental material including initiators being photopolymerizable and/or chemically polymerizable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the hardenable material of Oxman et al. in order to control the time between hardening of the dental material in view of Oxman et al.

Response to Arguments

8. Applicant's arguments filed March 27, 2008 have been fully considered but they are not persuasive. The claimed structural limitations are met by the prior art. Kahn reference does not teach that the crown form is used only for use in the usual lost wax process as argued by the applicant, for example, column 4 line 5; furthermore, the dental crown itself is not positively claimed nor defined. As to arguments pertaining to secondary reference of Bergstrom et al., again the situation considered is for lost wax process and not persuasive.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Melba Bumgarner/
Primary Examiner, Art Unit 3732